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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/613,385

07/03/2003

Raymond Hobbs

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04/13/2007

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EXAMINER

MAUST, TIMOTHY LEWIS

ART UNIT

PAPER NUMBER

3751

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
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3 MONTHS

04/13/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/613,385	HOBBS, RAYMOND	
	Examiner	Art Unit	
	Timothy L. Maust	3751	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 February 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 27-40, 44 and 47-58 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 27-40, 44 and 47-58 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

Applicant's election with traverse of Group II in the reply filed on 2/12/07 is acknowledged. The traversal is on the ground(s) that distinct claims do not pose an undue burden on the Examiner. This is not found persuasive because they are separately usable and are not obvious variants, as claimed.

The requirement is still deemed proper and is therefore made FINAL.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 27, 29, 31, 34, 38 and 44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Eichelberger et al. in view of Graham et al.

In regard to claims 27, 31 and 44, the Eichelberger et al. reference discloses a "hydrogen system" 20 comprising "hydrogen handling equipment" 1 including "piping" 5 and "valves" 4, a "sealed enclosure" 14 and "vent pipe" 6, but doesn't disclose being affixed to the ground. However, the Graham et al. reference discloses another hydrogen dispensing system that is affixed to the ground and dispenses hydrogen to vehicles. Therefore, it would have been an obvious matter of design choice to make the

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system affixed to the ground, since applicant has not disclosed that a ground affixed system rather than a mobile system solves any stated problem and it appears that the invention would perform equally well with a mobile system.

In regard to claim 29, see column 13, lines 41-67.

In regard to claim 34, the system is capable of the claimed function.

In regard to claim 38, "piping" 5 is an integral part of "vent pipe" 6.

Claims 27, 29-31, 34-37, 39, 40 and 44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Niedwiecki et al. in view of Eichelberber et al. and further in view of Graham et al.

In regard to claim 27, 29, 31, 34, 35, 39, 40 and 44, the Niedwiecki et al. reference discloses a "hydrogen handling system" 14 including "piping" and "valves" (see Figures 4 and 6), a "sealed enclosure" 16, "compressor" 50 and "vent pipe" 36; but doesn't disclose the location of the vent pipe terminating higher than the equipment or the system being affixed to the ground. However, the Eichelberger et al. reference discloses another hydrogen handling system (discussed supra) having a vent pipe 6 terminating above the handling equipment to vent gasses safely away from the equipment and the Graham et al. reference discloses a hydrogen dispensing system that is affixed to the ground. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to position the vent 36 of the Niedwiecki et al. device above the hydrogen equipment in view of the teachings of the Eichelberger et al. reference in order to vent gasses safely away from the hydrogen

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equipment and affix the system to the ground, since applicant has not disclosed that a ground affixed system rather than a mobile system solves any stated problem and it appears that the invention would perform equally well with a mobile system.

In regard to claim 30, inert gas (N_2) is introduced into feed line 40 to purge the system of any air.

In regard to claim 34, the Niedwiecki et al. device is capable of dispensing to a natural gas system.

In regard to claims 36 and 37, it would have been an obvious matter of design choice to place pressure vessels 100 vertically instead of horizontally, since it appears that the invention would perform equally well with horizontal pressure vessels.

Claims 27- 29, 31- 34, 36, 38, 40, 44, 47 and 48 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamashita in view of Eichelberger et al.

In regard to claims 27, 29, 31, 34, 38, 40, 44, 47 and 48, the Yamashita reference discloses a "hydrogen system" (Figure 1) comprising "hydrogen handling equipment" (Figure 4) including "piping" (Figure 4) and "valves" (Figure 4), a "pressure vessel" 2 at least partially below grade, and a "sealed enclosure" 1 that is affixed to the ground, but doesn't disclose having a vent pipe. However, the Eichelberger et al. reference discloses another hydrogen dispensing system (discussed supra) having a "vent" 6 to vent the system above the equipment if a leak would occur. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to employ a vent on the Yamashita device in view of the teachings of the

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Eichelberger et al. reference in order to vent the system above the equipment if a leak would occur. Further, the system is capable of dispensing into natural gas system.

In regard to claim 28, the Yamashita reference discloses the invention substantially as claimed (discussed supra), but does not disclose the walls being cylindrical. It would have been an obvious matter of design choice to make the walls cylindrical, since applicant has not disclosed that a cylindrical wall rather than a rectangular wall solves any stated and it appears that the invention would perform equally well with a rectangular wall.

Claim 32 and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamashita as applied to claim 27 above and further in view of Heffel et al. (6,612,269)

The Yamashita reference discloses the invention substantially as claimed (discussed supra), but doesn't disclose dispensing a mixture of hydrogen and natural gas. However, the Heffel et al. reference discloses another dispensing system that dispenses a mixture of hydrogen and natural gas to an engine of a vehicle to increase the energy density produced by hydrogen alone. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the Yamashita system (if not already) to dispense, as a mixture, both hydrogen and natural gas, in view of the teachings of the Heffel et al. reference in order to increase energy density.

In regard to claim 36, it would have been an obvious matter of design choice to place pressure vessel 2 vertically instead of horizontally, since it appears that the invention would perform equally well with a horizontal pressure vessel.

Claims 49-58 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamashita as applied to claim 27 above and further in view of Marshall.

In regard to claims 49-52, 55 and 56, the Yamashita reference discloses a hydrogen dispensing system substantially as claimed (discussed supra); but doesn't disclose a floor having walls emanating at an angle greater than 90 degrees and an open top being larger than the area of said floor. However, the Marshall reference discloses a containment vessel 7 (as described above) to capture leaks and spills beneath the dispenser. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the Yamashita device to employ a containment vessel (if not already) in view of the teachings of the Marshall reference in order to capture and contain leaks and spills beneath the dispenser.

In regard to claim 53, see column 3, lines 1-16.

In regard to claim 57, it would have been an obvious matter of design choice to place pressure vessel 2 vertically instead of horizontally, since it appears that the invention would perform equally well with a horizontal pressure vessel.

In regard to claims 54 and 58, inasmuch structure that is defined by a "pressurizing apparatus" or "compressor", the heater H meets the claim limitation by changing the pressure within the vessel 2 to release the newly formed hydrogen.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Timothy L. Maust whose telephone number is (571) 272-4891. The examiner can normally be reached on Mon. - Thur. 6:30 - 5:00.

The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Timothy L Maust
Primary Examiner
Art Unit 3751

Tlm
4/11/07